# Polysemy in Labrador Inuttitut Causatives

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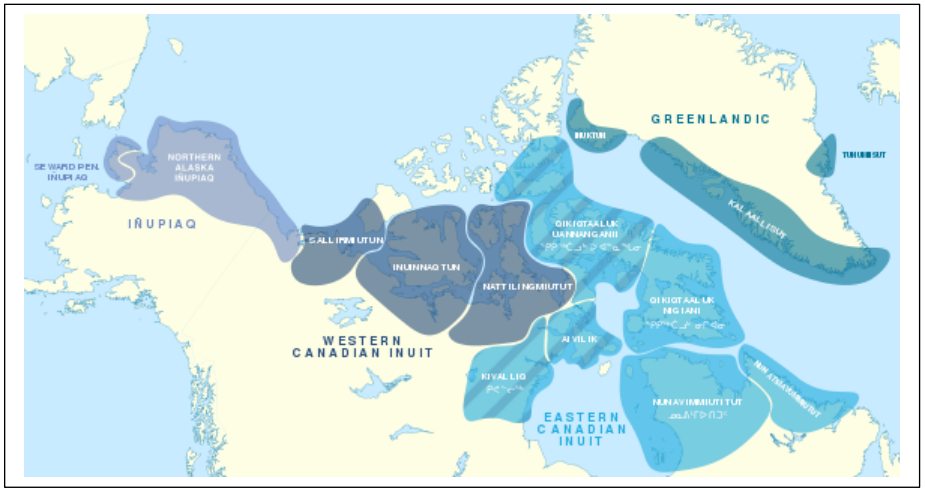
# 1. Introduction

- This talk investigates causatives in **Inuktitut**, and in particular **Inuttitut,** the variety spoken in Nunatsiavut (Labrador, Canada)




https://en.wikipedia.org/wiki/Inuit_languages


https://guides.lib.uw.edu/research/arctic/nunatsiavut

**Data note:** In this talk, all Inuttitut data were collected by the authors. Sources for other data are given with each example.

## Causatives

- Descriptively speaking, causatives take an **initial event** and transform it into a **caused event**.

| **initial event** | **caused event** |
| --- | --- |
| he fell off a cliff | I made him fall off a cliff |

- Causative is traditionally conceived of as a **valency-increasing** process. The caused event has an added argument, a **causer**, in addition to the arguments of the initial event.

I made him fall off a cliff
**causer** **causee**

## Overt and null causatives

- Inuktitut has two morphological causatives: a null causative and an overt affix -*tit*. In Labrador Inuttitut the overt affix is -*tti*.

- Both null and overt causatives are valency increasing, as expected: they introduce an added argument (the causer) that is not part of the initial event. (Jensen and Johns 1989, Allen 1998).

## Overt causatives in Labrador Inuttitut

1) a. nigi-kKau-juq
eat- R.PST-PART.3SG
"He (or she) was eating."

b. nigi-**tti**-jaga
eat-CAUS-PART.1SG/3SG
"I am making him (or her) eat."

2) a. ani-juk
went.out-PART.3sg
"He/she went out."

b. ani-**ti**-niat-taga
go.out-CAUS-N.FUT-PART.1sg/3sg
"I will make him/her go out."

3) a. Sopia pati-kKau-juk Ettua-mik
Sophia.ABS slap-R.PST-part.3sg Edward-acc
"Sophia slapped Edward."

b. Michaeli Sopia-mik pati-**tti**-si-kKau-juk Ettua-mik
Michael.ABS Sophia.ACC slap-CAUS-ANTIP-R.PST-PART.3SG Edward-ACC
"Michael made Sophia slap Edward."

- Overt causatives can be used with most verbs, if not all (Allen 1998:640).

## Null causatives in Labrador Inuttitut

4) a. Kajottak siKumi-kKau-juk
cup break-recent.pst-3s.part
'The cup broke'

b. siKumi-kKau-jaga
break-r.past-1s/3s.part
'I broke it'

5) a. iklivik amma-juk
box.ABS open-PART.3SG
"The box is open."

b. (iklivik) amma-jaga
box.ABS.SG open-PART.1SG/3SG
"I opened the box/it."

6) a. sâk saluma-juk
table.ABS clean-PART.3SG
"The table is clean."

b. (sâk) saluma-jaga
table.ABS.SG clean-PART.1SG/3SG
"I cleaned the table/it."

7) a. niaKojak otâ-sima-juk
bread.ABS burn-PERF-PART.3SG
"The bread burnt."

b. niaKojak otâ-kKau-jaga
bread.ABS burn-R.PST-PART.3SG
"I burnt the bread."

- Null causatives are restricted to a subset of verbs. Allen (1998:640) reports that these include change of state verbs, verbs of grooming, some verbs of motion, verbs of putting, verbs of emission and verbs of appearance.
- As far as we have seen, the null form seems to only occurs with anticausatives, i.e. predicates lacking an external argument. (Clear tests for unaccusativity in Inuttitut have not been established.)

## Polysemy between 'make' and 'let' in the overt causative

- The overt affix *-tit* ( *-tti in* Labrador Inuttitut) can be found translated into English usually as ‘make’ but also as ‘let’ as in (8)-(9), shown in three dialects. In other words, the overt causative is **polysemous**.
- Fortescue (1984, 85) states that the meaning of *-ti(t)/-tti* varies “in context (and according to stem).”

8) a. iři-**ti**-tara — *Utkuhiksalingmiut*
fall.from.high-caus-part.1s/3s — *dialect* (Briggs, Johns & Cook (2015)
‘I pushed [lit. made fall] him off a cliff.’

b. itiq-**ti**-taa — *Kangiryuarmiut*
come.in-cause-part.3s/3s — *Inuinnaqtun (*Kudlak & Compton (2018: 317)
‘He let her in.’

9) a. matu-**tti**-Kau-jaga — *Labrador Inuttitut*
cover-cause-r.past-3s/3s
‘I made someone cover it.’

b. sugusi-ngin-nik kuni-**ti**-jaga
child-POSS.3SG/3.PL-ACC kiss-CAUS-PART.1SG/3SG
‘I let him kiss his children.’

- Both the 'make' and 'let' meanings found with *-tti* causatives are characteristic of causative constructions, cross-linguistically (Shibatani & Pardeshi 2002, Aikhhenvald 2011) and can be broadly understood as instantiations of **direct** vs. **indirect** causatives, respectively

    - **Direct causatives:** introduce a patient-like causee who is understood to be coerced by the causer to participate in the caused event.

    - **Indirect causatives:** introduce an agent-like causee who is understood as having agency in the caused event, with a less intentional causer.

**I** made **him** read the book

**I** let **him** read the book

- Crucially, in Inuttitut, 'make'/'let' polysemy is unavailable to null causatives. They mean ‘make', never ‘let’ (10), cp. (11).
- This, too, is a typologically familiar pattern (Aikhenvald 2011, cf. Shibatani & Pardeshi 2002).
- In what follows, we take this to be a key clue to the nature of 'make' vs. 'let' polysemy.

10) John siKumi-tsi-Kau-juk
John. ABS break-ANTIP-R.PST-PART.3SG
available: "John broke the cup."
not available: "John let the cup break."

11) John siKummi-**ti**-tsi-Kau-juk
John.ABS break-CAUS-ANTIP-R.PST-PART.3SG
available: "John broke the cup."
"John let the cup break."

Our central interest in this talk is in the nature of Inuttitut 'make' vs. 'let' interpretations.

- What determines whether the polysemy is available and the correlation with overt causative morphology?
- In polysemous clauses, are structures with agentive causees ('let' reading) different from the structures with non-agentive causees ('make' reading)?
- Differently put, is there a strict match between structure and interpretation, or can there be mismatch?

- What determines whether the polysemy is available and the correlation with the overt *-tti* affix?
  - We give a structural explanation: Polysemy is possible when the extended projection of the verb introduces two external argument positions (Harley 2017, Johns to appear).
  - Whether or not a second EA position is projected is determined by both:
    - argument structure of the caused event
    - animacy of the causee
  - The correlation between polysemy and *-tti* is an artefact of realizational morphology. The higher of two external-argument introducing heads is realized as *-tti*.

- In polysemous clauses, are structures with agentive causees ('let' reading) different from the structures with non-agentive causees ('make' reading)?
  - In the spirit of Wood & Marantz 2017, it is not necessary to posit distinct structures for 'make' and 'let' interpretations. Having two external argument positions permits two possible interpretations: one where the higher EA integrates into the agent role of the predicate ('make' interpretation) and one where the lower EA does ('let' interpretation).

- Is there a strict match between structure and interpretation, or can there be mismatch?
  - On our approach, there need not be a strict match between structure and thematic interpretation.

## Road map

- Section 2: We argue that the difference between null causatives and *-tti* causatives is structural and is sensitive to argument structure and animacy.
- Section 3: We show that an account of 'make'/'let' polysemy in the spirit of Wood & Marantz 2017 captures the correlation between polysemy and *-tti* causatives.
- Section 4: We look briefly at non-valency increasing uses of *-tti* and extend our account to these.

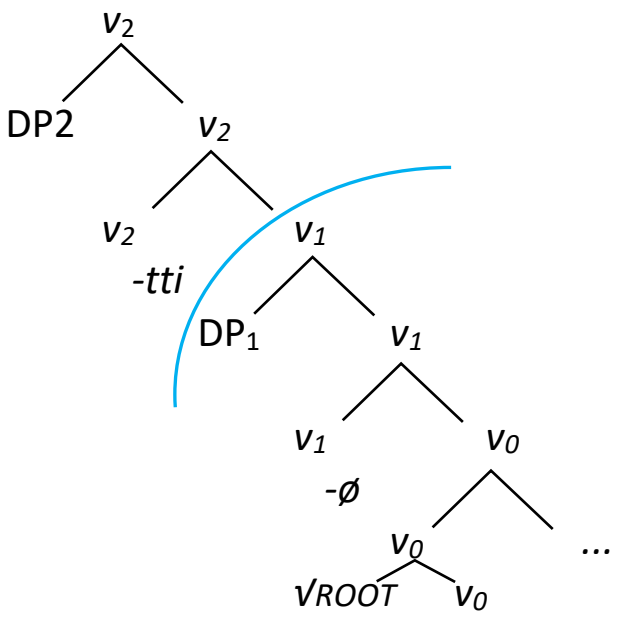
## 2. Null vs. Overt causatives

- In this section, we establish that the null and overt causatives realize distinct structural positions in the extended projection of vP as in (9) and (10).
- For the time being we label the higher heads in the extended projection of vP as $v_1$ and $v_2$ (we return to the nature of these projections in §3).

12)

| $v_2$ | $v_1$ | $v_0$ |
|---|---|---|
| *-tti* | *-ø* | |

13)




- We posit that the projection of *v2* — and consequently the distribution of the null vs. overt causative —is sensitive to both **argument structure** and **animacy** of the caused event.

## Sensitivity to argument structure

- If the initial event introduces an external argument, the overt *-tti* affix must be used.

14) Causative of unergatives must use *-tti*

a. angutik pisu-juk
man walk-3s.part
"The man is walking."

b. *angutik pisu-jaga
man walk-1s/3s.part
"I made the man walk."

c. angutik pisu-**ti**-jaga
man walk-caus-1s/3s.part
"I made the man walk."

15) Causative of transitive must use *-tti*

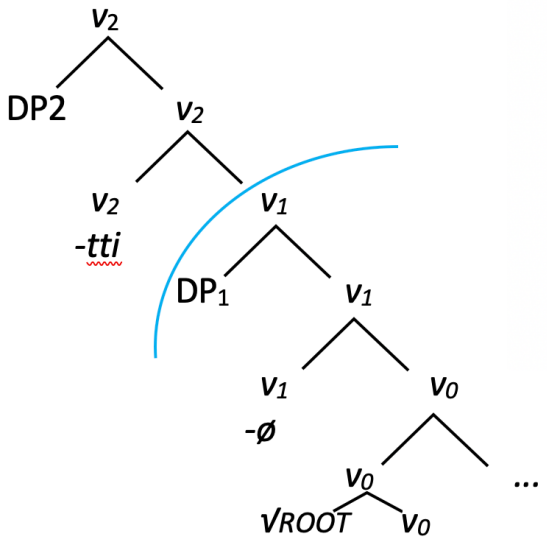
a. Sopia pati-kKau-juk Ettua-mik
Sophia.ABS slap-R.PST-PART.3SG Edward-ACC
"Sophia slapped Edward."

b. Michaeli Sopia-mik pati-*(tti)-si-kKau-juk Ettua-mik
Michael. ABS Sophia.ACC slap-CAUS-ANTIP-R.PST-PART.3SG Edward-ACC
"Michael made Sophia slap Edward."

- Claim: The external argument of an unergative or transitive verb is introduced in v1. This means an added causer can only be introduced in v2, which correlates with the realization of *-tti*.

16) [ CAUSER $v_2$ [ EA $v_1$ [ $v_0$ (...) ] ] ]

$v_2 \Leftrightarrow$ *-tti* $v_1 \Leftrightarrow$ *-ø*



## Sensitivity to animacy

- As we saw in (4)-(7), predicates that lack an external argument typically do not take the overt *-tti* form. However, even these must be causativized using overt *-tti* if the causee is animate (17). In other words, the descriptive generalization in (18) holds:

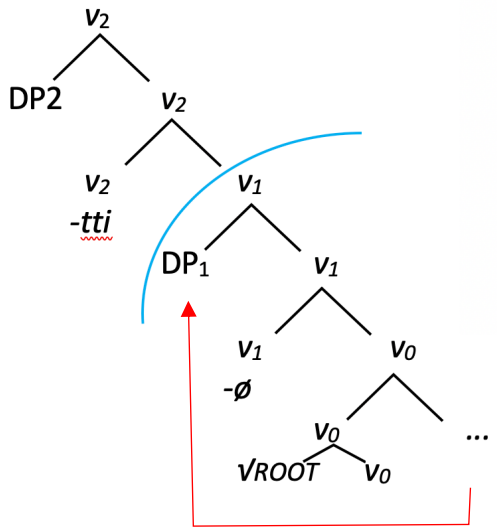
17) a. kata-kKau-juk 'He dropped (from the tree)'
drop-R.PAST-PART.3SG
b. kata-tti-Kau-jaga 'I made him drop (from the tree).'
drop-CAUS- R.PAST- PART.1SG/3SG
c. *kata-kKau-jaga 'I made him drop (from the tree).'
drop-R.PAST-PART.1SG/3SG

18) **Animacy restriction**: the null causative cannot occur with an animate causee.

- Claim: $v_1$ hosts phi-features which search for [π], a feature we take to be absent on inanimates.
- If the internal argument (IA) of an anticausative vP has [π] it Agrees and moves to Spec,$v_1$P. The filled Spec,$v_1$P cannot introduce an added causer. Thus, $v_2$ is required, which correlates with the realization of the *-tti* form.

19) [ CAUSER $v_2$ [ IA $v_1$ [ v <IA> ] ] ]
[π:_] [π]

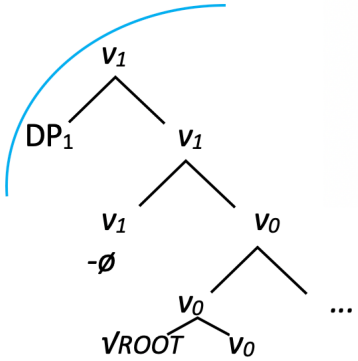
v2 ⇔ *-tti* v1 ⇔ *-ø*




17

- If the IA is inanimate then it does not Agree and it remains in situ. Because Spec,v1 is available, a causer can be introduced in v1, which correlates with -ø realization. No v2 is introduced in the structure, and therefore there is no *-tti* form.

20) [ CAUSER v1 [ v <IA> ] ] ]
[π:_] [...]
X
v1 ⇔ -ø



- Summary:
  - The null causative is the realization of v1, *-tti* causative is the realization of v2
  - The null causative is only possible for predicates that neither introduce an EA nor an animate internal IA.
  - The *-tti* causative is required when a causer cannot be introduced in Spec,v1 and thus requires a second argument introducing head v2 to be added to the structure.
  - A uniform explanation is given for both argument structure restrictions and the animacy restriction on causees.

## 3. Accounting for 'make'/'let' polysemy in the *-tti* causative

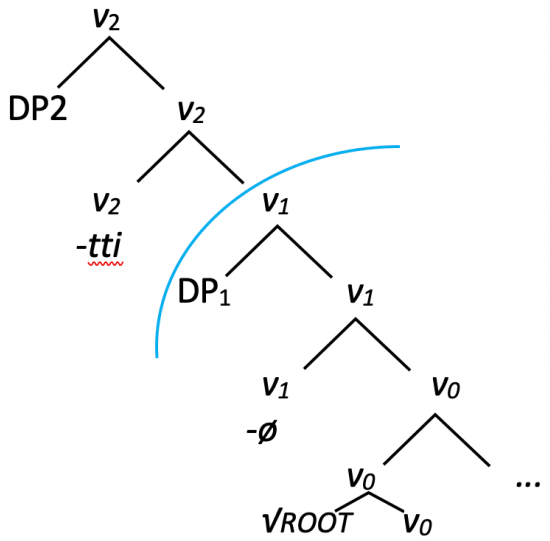
21) ani-tti-jaga
go.out-CAUS-PART.1SG/3SG
"I made him go out."
"I let him go out."

- We posit that 'make'/'let' polysemy is generally available in structures with two external argument introducing positions in the extended projection of *v*P.

- In the spirit of Wood & Marantz 2017, we posit that the difference in interpretation arises from details of how the DPs introduced in these positions are semantically integrated with their complement XP and not from their position or intrinsic properties of the heads that introduce them.

## Wood & Marantz 2017

- Wood & Marantz (2017) propose a framework where arguments are introduced by a minimally specified functional category *i** whose properties are determined by syntactic context.
- *i** that Merges with *v*P is assigned category *v*
- In our structure, $v_1$ can be understood as *i** that has Merged with $v_0$P, and so is assigned category *v.* Likewise, $v_2$ is *i** that has Merged with $v_1$P and so is assigned category *v*.



- The thematic interpretation of the argument is determined by how it integrates semantically with its XP complement.

    - If *i** (=*v*) introduces an argument that integrates semantically with its complement XP then it is tantamount to **voice**.

    - If *i** (=*v*) introduces an argument that does not integrate semantically with its complement XP then it is tantamount to **High Appl** and it must itself be enriched with root content that the argument can integrate with semantically (benefactive, locative, etc, depending on the choice of root, e.g., √*for*, √*on*, etc).

- This approach permits a dissociation between thematic role and syntactic position, allowing for polysemy in the interpretation of a particular DP depending on whether/how it integrates semantically with its complement.

**Japanese adversity passive**

22) Wood & Marantz 2017:(40)

[$_{voiceP}$ Taroo-ga [$_{vP}$ [$_{DP}$ musuko-o ] sin-ase]]-ta.

[$_{voiceP}$ Taroo-NOM [$_{vP}$ [$_{DP}$ son-ACC ] die-CAUS]]-PAST

(i) 'Taro caused his son to die.'

(ii) 'Taro's son died on him.'

23) [$_{voiceP}$ Taroo *voice* [$_{vP}$ die-CAUSE [$_{DP}$ POSSESSOR son ] ] ]

24) [$_{voiceP}$ Taroo *voice* [$_{vP}$ die-CAUSE [$_{DP}$ POSSESSOR son ] ] ]

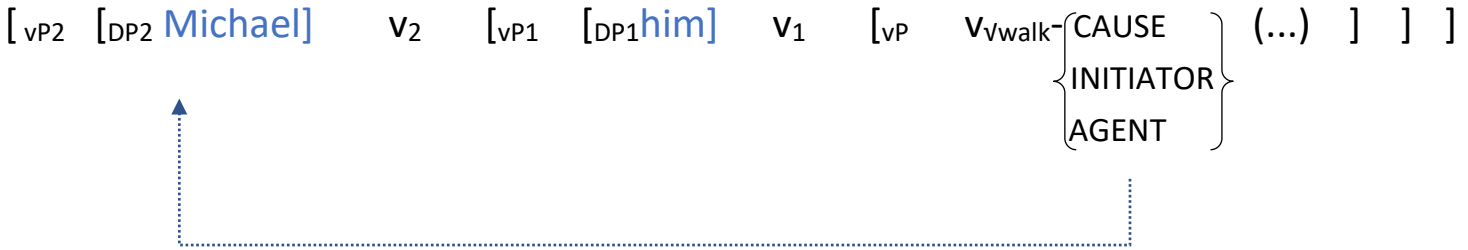
- One syntax, two integrations

**'Make'/'Let' polysemy**

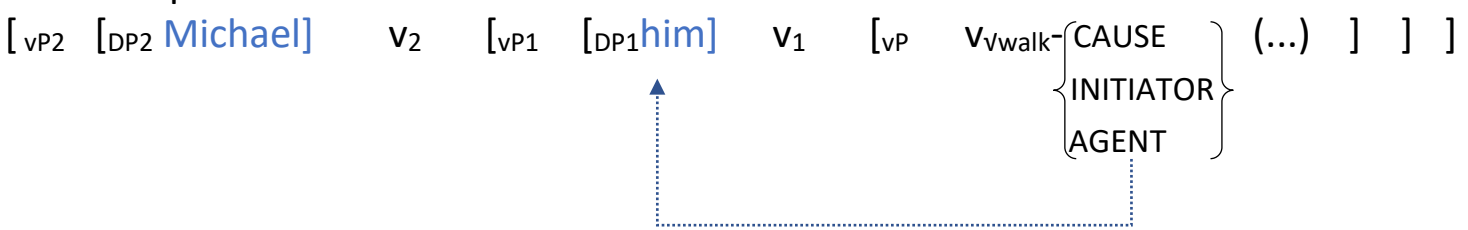
- We propose to account for 'Make'/'Let' polysemy in a similar fashion:

25) Michaeli pisu-tti-janga
Michael.ABS walk-CAUS-PART.1SG/3SG
"Michael made him walk."
"Michael let him walk."

26) 'Make' interpretation




27) 'Let' interpretation

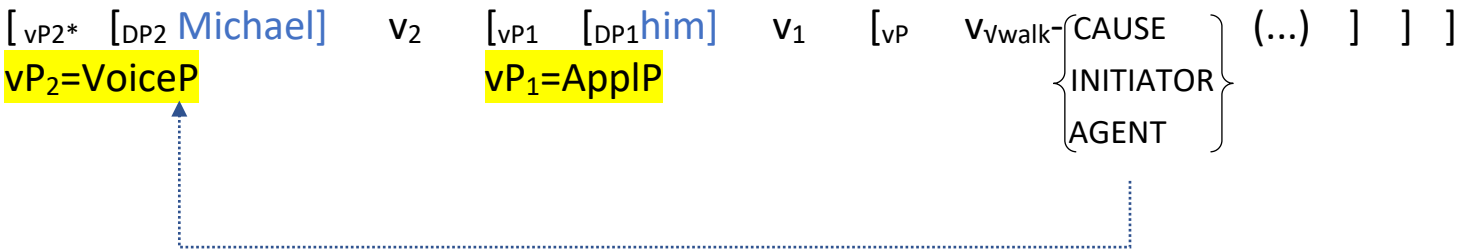


For our account we depend on one final feature of Wood & Marantz's proposal:

- If *i** =*v* introduces an argument that integrates semantically with its complement XP then it is tantamount to **voice** and it closes off the extended projection of *v*P such that no higher argument can integrate with it. (This is notated by the *)

- If *i** =*v* introduces an argument that does not integrate semantically with its complement XP then it is tantamount to **High Appl** (benefactive, locative, etc, depending on the choice of root, e.g., √*for*, √*on*, etc). High Appl does not close off the extended projection of *v*P which means a higher argument can in principle integrate with it.
  - NB: Modification to this proposed below.

28) 'Make' interpretation

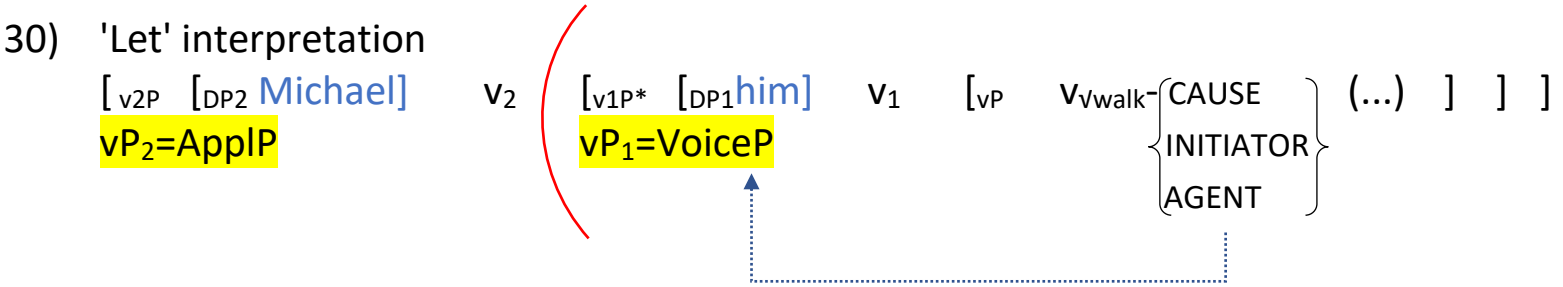



- If DP1 fails to integrates, then $v_1$ is tantamount to High Appl. It does not close the extended projection of vP which means the higher DP2 introduced in $v_2$ can integrate with XP and be construed as the cause/initiator/agent.
  - In this scenario , $v_1$ is tantamount to High Appl, $v_2$ is tantamount to voice.
  - On ApplP as external argument introducer see Tollan & Massam 2022, Nie 2020, Massam 2020.

- Semantic integration of an argument in High Appl, for Wood & Marantz, depends on enrichment by a root adjoined to *i**, however we speculate that it might also be possible to assign a default applicative role to the unintegrated argument (our DP1) by virtue of its syntactic context:

**29)** underspecified "ApplP" dominated by "voiceP" -> √*with* (instrumental)

30) 'Let' interpretation




- If DP1 integrates semantically with the complement of then DP1 is interpreted as initiator/agent and vP1 is tantamount to VoiceP which closes off the extended projection of *v*P.
  - This means that no higher argument can be semantically integrated with the predicate. vP2 must therefore be construed as an ApplP and D2 semantically integrated accordingly.

- As noted above, semantic integration of an argument in High Appl, for Wood & Marantz, depends on enrichment by a root adjoined to *i**, however we speculate that it might also be possible to assign a highly underspecified applicative role to the unintegrated argument (our DP2) by virtue of its syntactic context (underspecified "ApplP" dominating "voiceP"). This role need only establish a minimal relation to the event, compatible with, e.g., bystander role.

## Lack of polysemy with null causative

- **Why is there no polysemy in the /-ø/ causative?** because polsysemy arises from the interaction between v2 and v1 and the arguments they introduce. The /ø/ causative only has v1 and therefore only introduces one external argument. On the assumption that the extended projection of the vP must be closed off, then v1 must be tantamount to voice and the DP introduced by v1 must integrate with the event, receiving the causer/agent/initiator role.

## 4. A twist: non-valency increasing *-tti*

• Certain verbs allow a non-valency increasing use of the overt *-tti* affix. These are verbs that allow both null and overt causatives (Allen 1998). In these cases, instead of introducing a causer, the *-tti* affix signals heightened salience of the intentionality of the causer.

(7) Nunavik (Allen 1998:(5))

a. Pirutsiaqauti kata-qqau-jara **null causative**
vase-abs.sg fall-past-part.1s/3s
'I dropped the vase' accidentally

b. Pirutsiaqauti kata-**ti**-qqau-jara **overt causative**
vase-abs.sg fall-caus.-past-1s/3s
'I made the vase fall' (on purpose, e.g. by pushing it off the table)

(8) Labrador

a. kata-juk 'It dropped'
drop-3s.part

b. kata-kKau-jaga 'I dropped it.' **null causative**
drop-r.past-part.1s/3s

c. kata-**ti**-kKau-jaga 'I dropped it (on purpose)' **overt causative**
drop-cause-r.past-part.1s/3s

- Crucially, these structures disallow polysemy. Only the 'make' interpretation is possible (with extra intentionality).
- One might take this pattern to be a departure from the generalization established above that polysemy correlates with introduction of the higher argument-introducing head realized by -*tti*. However, because these are not valency increasing, absence of polysemy is in fact predicted by our account, which ties polysemy to the semantic integration of two external arguments to the XP.
- Since there is only one external argument in non-valency increasing -*tti* causatives, there can be only one interpretation: causer integrates as agent.
- One possible analysis, following Tyler 2022, is that in non-valency increasing -*tti* causative the v2 selects an expletive v1 (where v1 does not introduce a DP in its specifier). Intensification plausibly follows from doubling of the heads, perhaps pragmatically.

- See Aikhenvald 2011 for a general discussion of non-valency increasing causatives.
- Another language that uses causative morphology without increasing valency - for emphatic agentivity - is Finnish (Kittillä 2009):

31) a. henkilö laihtu-i 4.86 kilo-a
person:NOM lose.weight-3SG: PAST 4.86 kilogram-PART
"a person lost 4.86 kilograms of his/her weight (spontaneously,without conscious effort)"

b. henkilö laihdu-**tt**-i 4.86 kilo-a
person:NOM lose.weight-**CAUS**-3SG:PAST 4.86 kilogram- PART
"a person lost 4.86 kilograms of his/her weight (intentionally)"

- There are some Labrador speakers who do not interpret non-valency increasing *-tti* as extra purposeful, but instead interpret it as infelicitous because sentience is implied for the causee. This, too, is consistent with our account since v1 on our analysis hosts external arguments of unergatives and transitives (i.e. agents) or animate internal arguments.

32) ??*titigutik kata-**ti**-kKau-jaga
pen drop-cause-r.past-part.1s/3s
"I dropped the pen" (implies “#the pen has a brain”)

## Conclusions

- The null and overt *-tti* causatives in Labrador Inuttitut are similar in that, in their core uses, both are valency-increasing operations that introduce a causer.
- They differ, however, with respect to their structure. Structures with the null causative have just one argument introducing v head. Structures with the *tti-* causative project two argument introducing v heads.
- Another difference is in the availability of 'make'/'let' polysemy. The overt *-tti* causative permits polysemy and the null causative does not.
- We propose that the availability of polysemy depends on introducing multiple external arguments which "compete" for semantic integration with the cause/initiator/agent role of the predicate.
- In non-valency increasing uses of *-tti,* which we take to be a structure that introduce both heads but only one external argument, polysemy is not available.
- This approach supports a view of syntax-semantics that permits mismatch between structure and thematic interpretation.

## Future steps

- Identifying independent correlates of v1/v2 argument positions and DP1/DP2 semantic (non)integration.
- Looking more carefully at interactions between the root meanings and the availability of polysemy.
- Determining the event structure of both null and overt *-tti* causatives, e.g. bicausal/monocausal (Nie 2020).
- Extending the analysis to a third causativization strategy in Inuttitut: "articulated" causative.

33) Peter Kai-kKu-janga
Peter.ABS come-ask/want-PART.1SG/3SG
"Peter told him to come along."

## Acknowledgements

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